LANDFIRE Biophysical Setting Model Review

1. **Save this form** with your last name and the 4-digit BPS ID number. Go to *File—Save As* and enter: *Name_BPS#*.doc.

| 2. Basic Information			
Date of review:	**Map Zone(s):**		
BPS name:	**BPS code (4-digit):**		
Name:	**Title:**		
Affiliation:	**Address:**		
City:	**State:**		**Zip:**
Phone:	**Email:**		
Anonymity: (select one)	☐ **I would like my name listed as a reviewer.** If you select this option, your feedback will be incorporated and your name will be listed on the BPS description as a reviewer.		
	☐ **I would like to be an anonymous reviewer.** If you select this option, your feedback will be incorporated and only the regional lead and national staff will know your name.		

3. Rank your knowledge of this BPS.			
	Expert[a]	**Knowledgeable[b]**	**Familiar[c]**
a) How would you rate your understanding of the **fire regime** of this BPS throughout the entire model zone?	☐	☐	☐
b) How would you rate your understanding of the **succession processes** of this BPS throughout the entire model zone?	☐	☐	☐
c) How would you rate your understanding of the **composition and structure** of this BPS throughout the entire model zone?	☐	☐	☐
d) If your knowledge of this BPS varies considerably **geographically**, please indicate how it may vary within or between mapping zones (see map below). Leave blank if there is no substantial variation.			

[a]*Expert*: **In this BPS**, you have directed research or have at least 5 years of field experience, **and** feel confident in your understanding of the vast majority of related fire and/or other literature published in major professional journals.

[b]*Knowledgeable*: **In this BPS**, you have participated in research or have at least 3 years of field experience, **and** are familiar with some related fire and/or other literature published in major professional journals.

[c]*Familiar*: **In this BPS**, you have not directly participated in research and have less than 3 years field experience, but feel confident in your understanding of the majority of related fire and/or other literature published in major professional journals.

LANDFIRE Mapzones and Rapid Assessment Model Zones

Rapid Assessment Model Zones
LANDFIRE Map Zones
States

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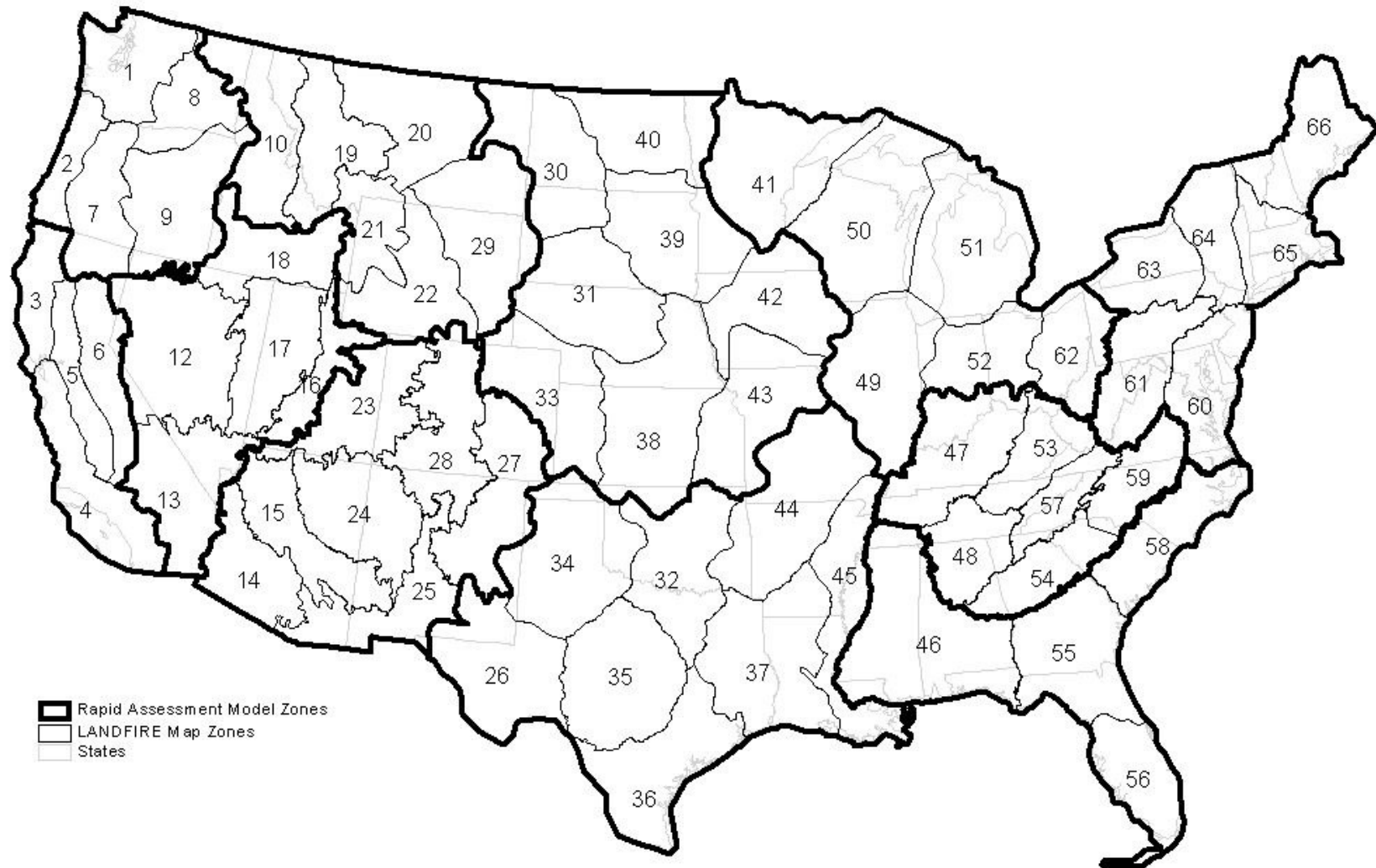
	Review of BPS descriptions and the actual VDDT model	Review of BPS descriptions only
4. Determine how you will perform your review. Reviews can be performed via interactively modeling in VDDT (optional but preferred), or via review of BPS descriptions. If you choose to use VDDT software to review the models, ensure that you attribute the time definitions with at least 500 years (time steps), and use 10 Monte Carlo simulations.		
I performed this review via	☐	☐

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5. Review the BPS description and model inputs, and answer the following questions.
If you do not know the answer to any of the following questions, please enter "do not know". Assume that the reference fire regime and vegetation/fuels input and described for each BPS reflect historic conditions (i.e., pre-European settlement); and expected conditions if a natural fire regime were allowed to operate freely. Burning by Native Americans may or may not be considered part of the natural fire regime. Models are NOT intended to include states or processes that result from human-induced disturbances or management actions (except possibly Native American burning), and are constrained by the standardized model structure for this project (i.e., 3-5 classes (boxes) per model).

5a. Rank this model overall.
Check one box for each row to classify your review overall. If you reject the model outright, please explain in further detail below.

	Accept as-is	Needs minor editing	Needs major editing	Reject outright
Model Description	☐	☐	☐	☐ **Model is redundant with another BPS (please specify):**
VDDT Model	☐	☐	☐	☐ **Model is not well-thought out or researched, for the reasons explained in the questions below.** ☐ **Other:**

Introduction and Description
The introductory BPS descriptions are intended to briefly describe the key factors that set this BPS apart from other BPSs. It should describe the geographic extent, biophysical site (e.g., major landform position, geologic substrate, elevation range), the vegetation, disturbance regimes, common adjacent BPSs, and information about scale.

5b.	Do the **introductory descriptions** adequately capture its distribution across the model zone? If not, what **specifically** should be added or removed from this description?	

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	Mosaic of model classes A-E Model outputs summarizing the expected proportion of each of the reference model classes (A-E) in the BPS reflects the result of successional and disturbance processes operating concurrently over the long term.	
5c.	Do the model **class descriptions** (A-E) appear to encompass the full spectrum of reference classes (including species composition, lifeform description, and canopy position) within the context of the standardized model structure (e.g., 3- to 5-box model)?	
5d.	Do the **structure data** described for each class (A-E) appear to be accurate, including percent cover and height of the upper layer lifeform, and tree size class (if applicable)?	
5e.	Do the **proportions of classes A-E** appear to reflect the landscape scale mosaic for this BPS ($\pm$ 10% for any one class) given a historic or reference fire regime?	If No, please select one option: ☐ The proportions are inaccurate for the entire geographic area this model covers and the model should be rejected and remodeled. Please complete additional questions above so that we know how to remodel this type. ☐ The proportions are inaccurate for a subset of the geographic area this model covers, including these areas:

	Disturbance Inputs Disturbance frequencies are translated to annual probabilities (1/ frequency in years) when entered into the VDDT model. Each disturbance can operate with different frequencies (i.e., different probabilities) and cause different transitions (i.e., have different effects) in different classes (i.e., boxes A-E). Fire disturbances are categorized in three severity classes (surface = <25% top-kill; mixed = 25-75% top-kill; replacement = >75% top-kill). Additional disturbance types may be modeled.	
5f.	Does the **range in fire frequency** (fire return intervals) adequately capture the best available information for the BPS described?	

5g.	Are there **sources of published literature on fire frequency** that appear to be missing and which will change the range or central tendency of fire frequency used in the model if it were included? If so, provide the full citation of literature that should be considered.	
5h.	If you review the VDDT model, do the **differences in annual fire probabilities for each fire severity type by class** appear to capture the best available information on how fire frequency and type are distributed throughout this BPS? If not, specifically what should be changed within the model?	
5i.	Does the **distribution of fire severity** between stand replacement (>75% top-kill), mixed severity (25-75% top-kill) and surface (<25% top-kill) fire regimes adequately capture the best available information for the BPS described?	
5j.	Are there **sources of published literature on fire severity** that appear to be missing and which will change the distribution of fire severity used in the model if it were included? If so, provide the full citation of literature that should be considered.	
5k.	Are there any major **non-fire related disturbances** (e.g., hurricanes, insects) that have not been captured by the model? If so, what are they? For each, what would you estimate are their mean, minimum and maximum return intervals and severities (e.g., stand replacement, mosaic)? Which classes (A-E) do each operate in?	

Additional Feedback		
5l.	Other comments, suggestions, or feedback.	

When complete, please email this form to your regional lead.

THANK YOU FOR COMPLETING THE MODEL REVIEW!